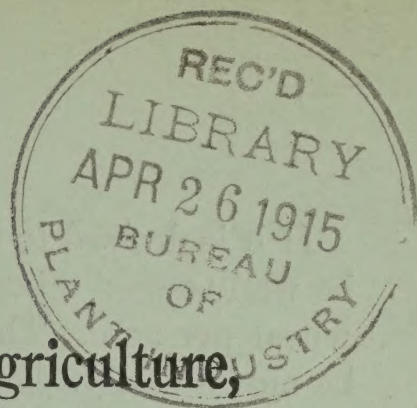


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F. C. I.—22.

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BUR CLOVER (*Medicago arabica*).

Bur clover is used mostly as winter pasture and as a soil improver in the Southern States. It covers the land during the winter and thus prevents the gulying of the fields and the reduction of the soil fertility by leaching. When used for pasture it should be grazed lightly or not at all during May, so that it can mature its seed and thus reseed the pasture for the succeeding year. It succeeds very well when mixed with Bermuda grass, the bur clover furnishing pasture during the fall, winter, and spring, while the Bermuda grass provides grazing during the hot summer months after the bur clover has disappeared. It can be cut for hay, but it lies too close to the ground unless seeded in a mixture with a fall-sown grain crop. True southern bur clover (*Medicago maculata* or *Medicago arabica*) is also called "spotted bur clover," from the dark red spot in the middle of each leaflet. California bur clover (*Medicago denticulata*) is less hardy than the spotted bur clover, usually winterkilling in North Carolina.

SEEDING.

If it is desired to seed bur clover in Bermuda-grass sod for pasturage, the burs may be scattered over the sod in the late summer. Even though the sod is not harrowed, the succeeding rains will usually wash sufficient soil over the burs to germinate enough to make at least a scattering stand, which will thicken up from natural re-seeding the next year. Another method is to plow furrows through the sod 4 to 6 or even 10 feet apart, scatter seed in this, and harrow to cover the burs.

When sown alone for a winter cover and green-manure crop the ground should be prepared as for wheat and the burs sown at the rate of 4 to 6 bushels to the acre and harrowed in during the month of September. The seed should not be sown on loose, freshly plowed land.

If it is desired to mow the crop for hay the following spring it will be well to seed 2 bushels of red rustproof oats or $1\frac{1}{2}$ bushels of early wheat per acre. This will enable the clover to grow erect enough to be mown easily.

Bur clover can also be seeded in a standing crop of corn or cotton to very good advantage, especially if the weather is not too dry during August and September. The clover will make a good cover during the winter, and in addition to adding atmospheric nitrogen to the soil in an available form it will also increase the humus content of the fields upon which it is grown. The seed can be sown at the rate of 3 to 6 bushels of burs to the acre and covered with a small-toothed cultivator or harrow, which can be run between the rows of corn or cotton. If the cotton has begun to burst its bolls, it is best to cover the seed immediately after the pickers have been through the field, to avoid damaging any newly opened cotton bolls.

The seed may be sown at any time from the middle of August to the last of September when the soil is in the proper condition as regards its moisture content.

INOCULATION.

The burs of bur clover ordinarily carry enough of the inoculation in the soil adhering to them to inoculate the new stand even the first time the crop is seeded on a field. It is therefore not usually necessary to use soil or pure cultures for inoculating, as would be desirable were hulled seed to be used. The burs should be harrowed in as promptly as possible after seeding, as the sun may destroy the inoculating germs.

BOILING THE SEED TO HASTEN ITS GERMINATION.

One of the handicaps to the growing of bur clover has been that the seed often fails to sprout for a considerable length of time after it has been seeded. This is owing to the fact that the seed coats are often so hard that they do not take up water fast enough to sprout promptly. This disadvantage can be largely overcome by the following treatment: (1) Empty a bag of the burs in a tub of cool water and let them stand for 2 hours, stirring occasionally to loosen as much mud as possible for reinoculating the burs at the end of the hot-water treatment; (2) remove the burs from the tub of cool water, put in a bag, and immerse for 5 minutes in a barrel of water almost scalding hot; (3) plunge the bag of burs for 1 minute in water kept boiling hot; (4) lift the bag of burs from the boiling water and plunge first into a barrel of cool water and then empty into the tub of muddy water into which the seed was first placed. The muddy water will inoculate the burs which have presumably had their inoculation

killed by immersing in the boiling water. Sow the seed immediately or spread out and dry as rapidly as possible in an airy, shady place.

ROTATION WITH CORN OR COTTON.

Bur clover can be seeded in corn or cotton in September and it will make a good growth before winter, providing early spring pasture or hay, and still allow the same land to be put in corn or cotton. Bur clover succeeds better in cotton than does crimson clover, which is often used to seed in standing corn in late summer or early fall. The bur-clover burs can be seeded in the cotton or corn in the early fall about 8 to 10 weeks before frost. The seed should be lightly covered with a small harrow or narrow-toothed cultivator. The next spring the middles can be broken out and the cotton planted. The subsequent cultivations will turn under the bur-clover plants, but enough should be left in the new middles until they have matured their seed to provide for the natural reseeding of the field to bur clover. In this way land producing only one-third of a bale of cotton to the acre may be increased in fertility until it is capable of producing at least a bale to the acre in ordinary seasons.

SEED PRODUCTION.

It is difficult to gather the seed of bur clover. For this reason the seed is usually scarce on the market. It can, however, be produced on any southern farm in sufficient quantities at least for local use in seeding down new fields. No machine has been devised as yet for gathering the seed successfully, and it is still the practice to sweep up the burs from the ground as soon as the plants have died down in June. It is an excellent idea to establish a small seed patch by making the soil on the area very rich and fertile and seeding it down at the rate of 8 to 10 bushels of burs per acre. Over a hundred bushels of burs are often obtained from an acre treated in this manner. The burs as swept up contain a good deal of trash and dirt, which is ordinarily removed by screening with hand-operated screens.

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JANUARY 13, 1915

